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| SERIAL NUMBER | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/377,450 01/24/95 HOGE

D 1411.0210001

KORZUCI EXAMINER

E5M1/0530

STERNE KESSLER GOLDSTEIN & FOX  
1100 NEW YORK AVENUE NW  
SUITE 600  
WASHINGTON DC 20005-3934

ART UNIT PAPER NUMBER

2512

13

DATE MAILED: 05/30/95

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 1/24/95 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.        | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.             | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.       |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____   |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1, 3, 4, 5, 7, 8, 9, 11 & 12 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☒ Claims 2, 6 & 10 have been cancelled.

3. ☐ Claims \_\_\_\_\_ are allowed.

4. ☒ Claims 1, 3, 4, 5, 7, 8, 9, 11 & 12 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

**EXAMINER'S ACTION**

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*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1, 3, 4, 9, 11 and 12 are rejected under 35 U.S.C. § 103 as being unpatentable over Shimizu et al in view of Godsoe et al and further in view of Applicant's admitted prior art as shown on page 8, lines 18-27.

With regard to claims 1, 3, 4, 9, 11 and 12, Shimizu et al shows in Figure 1 a tape loading system including a chassis (1) having a front end portion and a rear end portion; an elevator assembly (9) mounted on said chassis at said front end, said elevator assembly configured to receive a tape cartridge (14) and position the cartridge in a loaded position; and a take-up reel assembly (94,95) coupled to said chassis at said rear end

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portion. Shimizu et al further shows in Figure 1 the tape cartridge has magnetic recording tape which is wound on a supply reel (38) rotatably mounted within the cartridge and has a leader block (39) attached to one end for use in withdrawing the end from the tape cartridge. Shimizu et al further shows in Figure 1 a supply reel drive assembly (35-37) co-located with said elevator assembly, said supply reel drive assembly configured to couple with the supply reel of the cartridge and to rotatably drive the supply reel. Shimizu et al further shows in Figure 1 the take-up reel assembly includes a take-up reel (94) and a servomotor (95) coupled to said take-up reel. Shimizu et al does not show a linear threading mechanism or a helical deck. Godsoe et al shows in Figure 1 a linear tape threading system including a substantially linear tape loading path between an elevator assembly (26) and a take-up reel assembly (28) with a movable guide (46) for seizing the tape from the loading path and wrapping the tape around the magnetic head (32); and a raised linear threading mechanism, including a linear bearing (40), a threading arm (42), and a threading cam (31,34), wherein said bearing, said arm, and said cam are operably configured to grasp the leader block of the tape, thread the tape through said tape loading path and couple said leader block to said take-up reel assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the tape

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loading system of Shimizu et al with the linear tape threading system as taught by Godsoe et al. The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to use the linear tape threading system as taught by Godsoe et al since it does not require an external force to accomplish the threading of the magnetic tape through the tape loading path. Applicant's admitted prior art as shown on page 8, lines 18-27 teaches the use of a helical deck with a rotary read/write head is known in a Panasonic Model D350 digital video cassette recorder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the tape loading system of Shimizu et al in view of Godsoe et al with the helical deck as shown by Applicant's admitted prior art on page 8, lines 18-27 so that the helical deck is mounted on a central portion of the chassis between the elevator assembly and the take-up reel. The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to use the helical deck as taught by Applicant's admitted prior art on page 8, lines 18-27 since it allows tape cartridges written in helical scan format to be read by the tape loading system.

2. Claims 5, 7 and 8 are rejected under 35 U.S.C. § 103 as being unpatentable over Shimizu et al in view of Godsoe et al and

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Applicant's admitted prior art as shown on page 8, lines 18-27 and further in view of Moy et al.

With regard to claims 5, 7 and 8, Shimizu et al in view of Godsoe et al and Applicant's admitted prior art as shown on page 8, lines 18-27 show all the features as described, *supra*, except for a plurality of transports vertically spaced eleven inches on center dimensioned to fit within a rectangular enclosure measuring approximately twelve and one-half inches wide by twenty-six and one-half inches deep and that the front end of the chassis extends seven inches outward from the enclosure to mate with an automated cartridge system. Moy et al shows a Storage Technology Corporation Model 4400 automated cartridge system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the tape loading system of Shimizu et al in view of Godsoe et al and Applicant's admitted prior art as shown on page 8, lines 18-27 to have the dimensions described above and place it in the automated cartridge system as taught by Moy et al. The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to place the tape loading system of Shimizu et al in view of Godsoe et al and Applicant's admitted prior art as shown on page 8, lines 18-27 in the automated cartridge system of Moy et al to increase the memory capacity of the automated cartridge system and the above dimensions would result from

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modifying the tape loading system of Shimizu et al in view of Godsoe et al and Applicant's admitted prior art as shown on page 8, lines 18-27 to fit in the automated cartridge system of Moy et al.

*Response to Amendment*

3. Applicant's arguments filed on January 24, 1995 have been fully considered but they are not deemed to be persuasive.

Applicant asserts on page 7, "[c]laim 9 as amended, recites a helical scan transport which includes a video tape recorder helical deck for reading/writing a single reel tape cartridge with a substantially linear tape loading path" and "Applicants submit that the art of record neither teaches nor suggests the combination of these features or the advantages of leveraging existing helical technology for transport systems." The Examiner maintains that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection. In re Preda, 401 F.2d 825, 159 USPQ 342 (CCPA 1968) and In re Shepard, 319 F.2d 194, 138 USPQ 148 (CCPA 1963). Furthermore, it should be noted that a conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference, In re Bosek, 416 F.2d 1385, 163 USPQ

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545 (CCPA 1969), and that every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein. In re Bode, 550 F.2d 656, 193 USPQ 12 (CCPA 1977).

Applicant further asserts on page 9, "that the art of record neither teaches nor suggests the raised linear threading mechanism of the present invention." It is the Examiner's position that the art of record (i.e. Godsoe et al) teaches the raised linear threading mechanism of the presently claimed invention.

Applicant lastly asserts on page 9, "[w]hile Godsoe does teach a relatively linear threading mechanism, such a system requires use of a channel which is substantially in the same plane as the guideposts and magnetic head" and that "[s]uch an arrangement could not be used because the Godsoe channel and the drive mechanism would interfere with the base plate of the helical deck." The Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to construct the channel so that it does not interfere with the base plate of the helical deck. The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to construct the channel so that it does not interfere with the base plate of the helical

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deck so that the tape can be accurately threaded past the helical deck to the take-up reel.

*Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Korzuch whose telephone number is (703) 308-1296.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

*William R. Korzuch*

William R. Korzuch

May 23, 1995

*Stuart S. Levy*  
STUART S. LEVY  
SUPERVISORY PATENT EXAMINER  
GROUP 2500